

REMARKS

Claims 1-20 remain pending.

In the December 31, 2007 Final Office Action¹, the Examiner rejected claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over “Design and Evaluation of a Resource Selection Framework for Grid Application” by Liu et al. (“*Liu*”) in view of “Nimrod/G: An Architecture for a Resource Management and Scheduling System in a Global Computational Grid” by Buyya et al. (“*Buyya*”).

Applicants respectfully traverse the rejection of claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over *Liu* in view of *Buyya*. No *prima facie* case of obviousness has been established.

The key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. Such an analysis should be made explicit and cannot be premised upon mere conclusory statements. See *M.P.E.P. § 2142, 8th Ed., Rev. 6 (Sept. 2007)*. “A conclusion of obviousness requires that the reference(s) relied upon be enabling in that it put the public in possession of the claimed invention.” *M.P.E.P. § 2145*. Furthermore, “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art” at the time the invention was made. *M.P.E.P. § 2143.01(III), internal citation omitted*. Moreover, “[i]n determining the differences between the prior art and

¹ As Applicants’ remarks with respect to the Examiner’s rejections are sufficient to overcome these rejections, Applicants’ silence as to certain assertions or requirements applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, etc.) is not a concession by Applicants that such assertions are accurate or such requirements have been met, and Applicants reserve the right to analyze and dispute such in the future.

the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious.” *M.P.E.P. § 2141.02(I)*, internal citations omitted (emphasis in original).

“[T]he framework for objective analysis for determining obviousness under 35 U.S.C. § 103(a) is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q 459 (1966) . . . The factual inquiries . . . [include determining the scope and content of the prior art and] . . . [a]scertaining the difference between the claimed invention and the prior art.” *M.P.E.P. § 2141(II)*. Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art.” *M.P.E.P. § 2141(III)*.

Independent claim 1, recites a method comprising: “sending the request to a different portion of the network if computational resources are unavailable to begin computing the task,” (emphasis added). The applied prior art does not teach at least these elements of claim 1, and does not render claim 1 obvious.

According to *Liu* “[t]he resource selector locates sets of resources that meet user requirements, evaluates them based on specified performance model and mapping strategies, and returns a suitable collection of resources, if any are available” (emphasis added), (page 2, col. 1, lines 32-36). In another part of *Liu* it is explained that “[t]he algorithm returns the “best set” that satisfies the user’s request, or failure if no such resource set is found,” (page 3, col. 2, lines 24-25). Furthermore, in *Liu*, “[t]he RSS accepts both synchronous and asynchronous requests described by set-extended ClassAds. It responds to a synchronous request with the best available resource set

that satisfies this ClassAd, or “failure” if no such resources are available” (emphasis added), (page 4, col. 2, lines 7-12). Thus, the RSS taught by *Liu* selects a best set that satisfies the user’s request and if no such resources are available, the RSS in *Liu* responds to the request by sending a failure. However, the response in *Liu* does not constitute Applicants’ claimed “sending” which includes “sending the request to a different portion of the network if computational resources are unavailable to begin computing the task,” as recited in claim 1 (emphasis added), because the RSS in *Liu* sends a failure in response to the request, if no such resources are available and does not send the request to a different portion of the network.

The Examiner alleged that pages 4-5, col. 2-1, lines 49-14 of *Liu* correspond to the claimed “sending the request to a different portion of the network if computational resources are unavailable to begin computing the task,” (emphasis added). See Office Action at page 3. The Examiner’s allegation is incorrect. As noted above, “[i]f multiple resource sets fulfill the requirements, the resource set on which application gets smallest execution time has the highest rank” (emphasis added), (page 5, col. 1, lines 12-14). Such a disclosure does not constitute “sending the request to a different portion of the network if computational resources are unavailable to begin computing the task,” as recited in claim 1 (emphasis added), because prior to sending a request *Liu* analyzes the available resources, ranks the available resources and sends the request to the best resource when “multiple resource sets fulfill the requirements.”

As noted above, *Liu* discloses an RSS which sends a request to the best resource when multiple resources are available or sends a failure message to the client when the resource is not available. The RSS in *Liu* does not teach or suggest “sending

the request to a different portion of the network if computational resources are unavailable to begin computing the task,” as recited in claim 1 (emphasis added). That is, because the RSS in *Liu* selects the best resource prior to sending the request, there is no reason to send the request to a different portion when the best resource is already selected.

Buyya, which was cited for its alleged teaching of “reserving the selection and sending a reservation number for the selection,” (Office Action at page 3), does not overcome the deficiencies of *Liu*. That is, *Buyya* also does not teach, suggest, or render obvious “sending the request to a different portion of the network if computational resources are unavailable to begin computing the task,” as recited in independent claim 1 (emphasis added), because *Buyya* teaches a “scheduling system [that] can use various kinds of parameters in order to arrive at a scheduling policy to optimally complete an application execution” (page 4, col. 1, lines 18-20). According to *Buyya*, “[T]he advantage of this approach is that the user knows before the experiment is started whether the system can deliver the results and what the cost will be” (emphasis added), (page 4, col. 1, lines 2-4). Thus *Buyya* does not teach or suggest “sending the request to a different portion of the network if computational resources are unavailable to begin computing the task,” as recited in claim 1 (emphasis added), because the scheduler presents only the available resources prior to sending the request and the request is not sent to different portion of the network if computational resources are unavailable because the scheduler ensures that only the available resources are available.

Further, *Buyya* teaches away from sending the request to a different portion of the network because the objective of the scheduler in *Buyya* is to ensure that the user is provided with the specifications of the experiment, before the experiment is started. Sending the request to a different portion of the network will change the specifications that were provided to the user.

As discussed, “[i]n determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious.” *M.P.E.P. § 2141.02(I)*, internal citations omitted (emphasis in original).

Here, no *prima facie* case of obviousness has been established for at least the reason that the Examiner’s mischaracterization of the reference means that the Examiner has failed to properly determine the scope and content of the prior art and has accordingly failed to properly ascertain the difference between the prior art and the matter of claim 1. Moreover, regarding the differences that have been cited, the Examiner does not provide a reason why one of ordinary skill in the art, at the time the invention was made, would modify *Liu* and *Buyya* to achieve the combination of claim 1. The Examiner has not identified any predictability or reasonable expectation of success of such a modification.

Accordingly, no reason has been clearly articulated as to why *Liu* and *Buyya* would render the claimed combination obvious to one of ordinary skill in the art. Thus no *prima facie* case of obviousness has been established with respect to claim 1. Therefore, the Examiner should withdraw the rejection of claim 1 under 35 U.S.C.

§ 103(a). Claims 2-6 depend from claim 1 and are thus also allowable over *Liu* and *Buyya*, for at least the same reasons as claim 1.

Independent claims 7 and 15, though of different scope from claim 1, recites limitations similar to those set forth above with respect to claim 1. Claims 7 and 15 are therefore allowable for at least the reasons presented above. Claims 8-14 and 16-20 are also allowable at least due to their dependence from claims 7 and 15 respectively.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1-20.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are neither anticipated nor rendered obvious in view of the cited references. Applicants therefore request the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

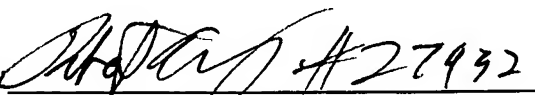
Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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Dated: February 22, 2008

By


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